



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/483,321	01/14/2000	Gary L. Swoboda	TI-28937	8221

23494 7590 07/30/2003

TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER

DAY, HERNG DER

ART UNIT	PAPER NUMBER
----------	--------------

2123

DATE MAILED: 07/30/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/483,321

Applicant(s)

SWOBODA, GARY L.

Examiner

Herng-der Day

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to Applicant's Amendment (paper # 10) to Office Actions dated March 10, 2003 (paper # 5) and June 20, 2003 (paper # 7), faxed July 9, 2003.

1-1. Claims 1 and 4 have been amended; claims 5-12 have been added; claims 1-12 are pending.

1-2. Claims 1-12 have been examined and claims 1-12 have been rejected.

Priority

2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. The provisional application number is 60/120,667, filed February 19, 1999.

Drawings

2. The drawings are objected to for the following reasons. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2-1. Figures 3-6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

2-2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:

(1) reference character "31" has been used to designate both "CPU CORE" in FIG. 3 and "MEGA MODULE 1" in FIG. 4.

Art Unit: 2123

(2) reference character “33” has been used to designate both “ANALYSIS” in FIG. 3 and “MEGA MODULE 0” in FIG. 4.

2-3. Fig. 4 displays lines with one arrow, two arrows, or no arrow at all. A legend will be helpful to particularly point out all the different meanings.

2-4. Fig. 8 displays various types of lines with one arrow or no arrow at all. A legend will be helpful to particularly point out all the different meanings. For example, it is unclear whether the function of the line connects “MODE” and “SWITCH 202” is input, output, or input/output.

Specification

3. The disclosure is objected to because of the following informalities:

Appropriate correction is required.

3-1. It appears that “access adapter 3”, as described in lines 27-28 of page 7, should be “access adapter 2”.

4. The amendment filed June 20, 2003, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The amended material, which is not supported by the original disclosure, is as follows:

(1) Amended “cycles” to “bits”, as described in claim 1, page 4 of paper # 10.

(2) Amended “cycles” to “bits”, as described in claim 4, page 5 of paper # 10.

(3) Added “normal mode signal” and “alternative data mode signal”, as described in claim 6, page 6 of paper # 10.

(4) Added “bypass path mode signal”, as described in claim 8, pages 6-7 of paper # 10.

Art Unit: 2123

(5) Added “said start bit generator generating a serial signal having a predetermined number of bits, each bit of said serial signal having a first logic state” and “said output switch further connecting said serial signal, said start bit and said data ...”, as described in claim 12, page 7 of paper # 10.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6-1. For example, amended “cycles” to “bits”, as described in claims 1 and 4 does not appear to be supported by the original specification. It is well known to one skilled in the relevant art that “bits” are not necessarily equivalent to “cycles”.

6-2. In claim 4, the limitation “a predetermined number” in line 7 of the claim, does not appear to be supported by the original specification.

6-3. In the newly added claims 6 and 8, the added “normal mode signal”, “alternative data mode signal”, or “bypass path mode signal”, does not appear to be existed in the original specification.

Art Unit: 2123

6-4. As described in lines 23-25, page 19 of the original specification, “Start bit generator 213 produces the start bit which is selected for transmission to the TDO line by output switch 202”. Therefore, the claimed limitation of claim 12, “said start bit generator generating a serial signal having a predetermined number of bits, each bit of said serial signal having a first logic state”, does not appear to be supported by the original specification. Meanwhile, the claimed limitation of claim 12, “said output switch further connecting said serial signal, said start bit and said data ...”, does not appear to be supported by the original specification neither.

With so many limitations do not appear to be supported by the original specification, claims 1-12 eventually contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

7. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

7-1. For example, as described in lines 19-20, page 18 of the original specification, “This data transfer protocol includes a first section 121 of plural bits of the same digital state”. However, the specification fails to disclose how to determine those plural bits. Accordingly, without undue experiment, it is unclear how one skilled in the art may make and/or use the invention.

7-2. Claim 4 recites the limitation “at said selected module, supplying a serial signal having said first logic state to following registers in the serial connection of the plurality of registers” in lines 5-7 of the claim. However, the limitation in lines 8-9 of claim 1 states “nonselected

Art Unit: 2123

modules being nonresponsive to data on said serial connection". Therefore, without undue experiment, it is unclear how one skilled in the art may, "at said selected module", supply a serial signal to following registers because "nonselected modules suppose being nonresponsive to data on said serial connection".

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9-1. Claims 1, 4-7, and 12 recite the limitation "logic state" in the claim. It is vague and indefinite because only "digital state" has been clearly defined, as described in lines 24-25, page 18 of the specification, "In the preferred embodiment the first digital state is all 1's and the start bit is a 0". For the purpose of claim examination, the Examiner will interpret every "logic state", as described in claims 1, 4-7, and 12 as "digital state".

9-2. Claim 6 recites the limitation "said serial input" in line 7 of the claim. It is indefinite because a serial scan path has a "serial input", as described in line 2 of the claim, and a start bit detector also has a "serial input", as described in line 5 of the claim.

Also note, Claim 6 recites the limitations "said serial data input" and "said serial data output" in, for example, line 8 of the claim. There is insufficient antecedent basis for these limitations in the claim.

9-3. Claims 2-3 and 8-11 are rejected as being dependent on a rejected claim.

Art Unit: 2123

Allowable Subject Matter

10. Claims 1-12 are deemed novel and non-obvious over the prior art of record, and would be allowed once the above rejections under 35 U.S.C. 112, first and second paragraphs are overcome.

Applicant's Arguments

11. Applicant argues the following:

(1) "Claims 1 and 4 have been amended to further distinguish over the reference Bhattacharya" (pages 8-12, paper # 10).

(2) "claim 4 does explicitly recite the three different signals" (page 11, paper # 10).

(3) "New claims 6-12 are apparatus claims to the apparatus illustrated in Figure 8 and disclosed in the application at page 18, line 31 to page 20, line 2" (pages 8 and 12, paper # 10).

Response to Arguments

12. Applicant's arguments have been fully considered. They are not persuasive.

12-1. Response to Applicant's argument (1). Amended claims 1 and 4 introduce new matter, as detailed in section 4 above and claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as detailed in section 6-1 above. Nevertheless, after the Examiner interprets every "logic state" as "digital state" in all related claims, the original claim rejections under 35 U.S.C. 102(e) for claims 1-4 have been withdrawn.

12-2. Response to Applicant's argument (2). Claim 4 does not appear to be supported by the original specification, as detailed in section 6-2 above. Also note, the limitation of claim 4

Art Unit: 2123

appears destroying the limitation claimed in claim 1, as detailed in section 7-2 above. Claim 4 is rejected under 35 U.S.C. 112, first paragraph.

12-3. Response to Applicant's argument (3). New claims 6-12 introduce new matter, as detailed in section 4 above. Claims 6-12 are rejected under 35 U.S.C. 112, first paragraph, as detailed in sections 6-3, 6-4, and 7-1 above. Claims 6-12 are also rejected under 35 U.S.C. 112, second paragraph, as detailed in sections 9-1, 9-2, and 9-3 above.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference to Gibbons et al., U.S. Patent 5,530,704 issued June 25, 1996, is cited as disclosing transmitting digital data using a UART protocol.

Reference to Swoboda, U.S. Patent 5,828,824 issued October 27, 1998, is cited as disclosing a method for debugging an integrated circuit using extended operating modes.

Reference to Oh et al., U.S. Patent 6,037,868 issued March 14, 2000, and filed March 30, 1998, is cited as disclosing an alarm method for a mobile communication repeating system.

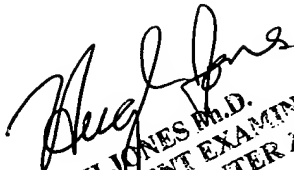
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Herng-der Day whose telephone number is (703) 305-5269. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin J Teska can be reached on (703) 305-9704. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Art Unit: 2123

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Herng-der Day
July 22, 2003


HUGH JONES M.D.
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER 2100